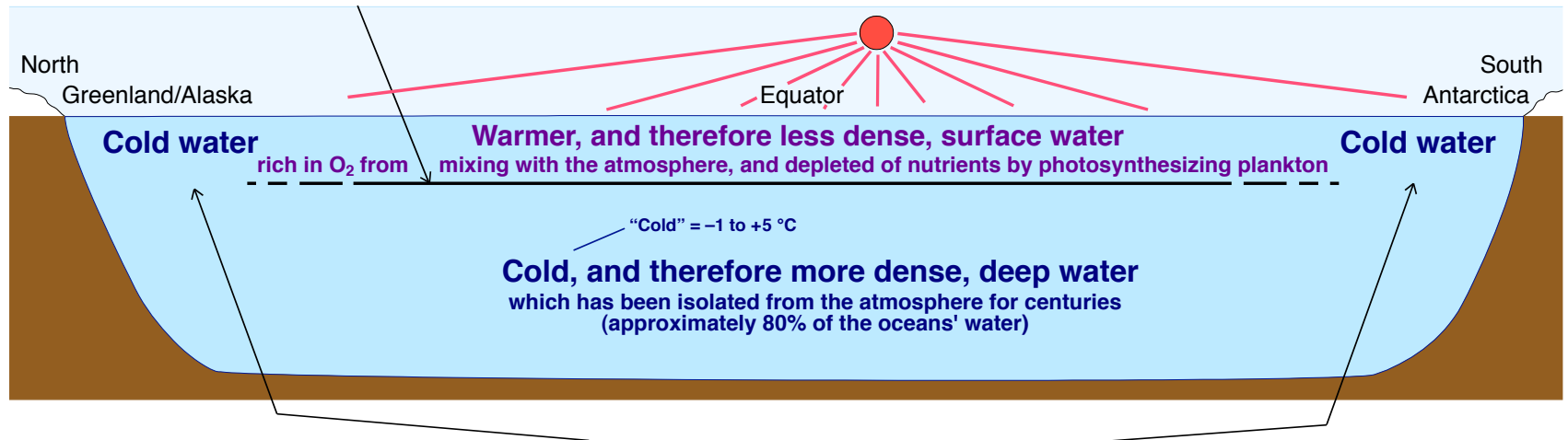


The thermocline

***Thermocline* (a gradient in temperature) that is also a *pycnocline* (a gradient in density)**

so that the thermocline is a barrier to vertical mixing:

less dense warm water rides over more dense cold water



Absence of a thermocline at high latitude allows vertical mixing, mostly as cold surface water sinks into the deep ocean